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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,537	07/18/2000	Hiroshi Tanaka	49761(868)	8668
21874	7590	03/24/2006	EXAMINER	
EDWARDS & ANGELL, LLP			PARK, CHAN S	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			2625	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/618,537	TANAKA ET AL.	
	Examiner	Art Unit	
	CHAN S. PARK	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Translog

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/19/05 has been entered.

Response to Amendment

2. Applicant's amendment was received on 10/19/05, and has been entered and made of record. Currently, **claims 1 and 9** are pending.

Response to Arguments

3. Upon review of the reference of Kawamoto (U.S. Patent No. 6,486,971), which was cited in the Office Action dated 7/21/05 under 35 U.S.C. 102 (e), as being anticipating claims 1 and 9, the examiner notes that the reference can still be interpreted as anticipating the claims, as currently amended.

With respect to claim 1, the applicant argued that the single FIFO memory 63 of Kawamoto consists of two memory devices (col. 9, lines 13-20 of Kawamoto). Examiner agrees with the applicant that the FIFO 63 of Kawamoto includes two memory devices. However, it is noted that the difference between the current claiming wording

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and the teaching of Kawamoto is not apparent because the FIFO 63 memory of Kawamoto is considered as a single FIFO memory as claimed. Furthermore, upon careful review of the original Specification, Examiner does not any teaching/disclosure stating that the applicant's single FIFO memory consists of one single FIFO memory device. If the applicant wishes the overcome the rejection by amending the claim wording to "a single first-in, first-out memory device", an explicit disclosure of the limitation must be provided in the original Specification.

Furthermore, the applicant argued that Kawamoto fails to teach that "an enlarging variable magnification processing in a sub-scan direction is carried out independently of an enlarging variable magnification processing in a scan direction".

Again, Examiner respectfully disagrees. Examiner stated in the previous Office Action that

"the magnification ratio of the sub-scanning direction is changed by the synchronizing signal for the main scanning direction (col. 7, lines 12-19). However, ...this synchronizing signal [for the main scanning direction] is not related to the magnification processing of the [sub-scanning] scan-direction. Thus, they are independent."

In other words, the enlarging variable magnification processing in a scan direction, which enlarges/expands the image data in the scan direction, is completely independent of the interval of generating the synchronizing signal for the main scanning direction, which results in the enlargement of the image data in the sub-scan direction. As noted in col. 7, lines 13-15, the interval of generating the synchronizing signal for the main scanning direction only depends on "the magnification ratio of the sub scanning direction". The interval of generating the synchronizing signal directly controls the

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magnification processing in the sub-scan direction, not the main scan direction. Thus, they are carried out independently.

Also, read the portions cited in the rejection below.

With respect to claim 9, it recites that

“a variable-magnification processing means for increasing and decreasing a number of the image forming means from which one line worth of image data is outputted by increasing and decreasing a number of the turning-on switching means by on/off-controlling the switching means in correspondence to magnification ratio.”

Note that it is inherent to one of ordinary skill in the art that when the image data is enlarged/reduced, the number of turning-on/off of the semiconductor laser elements of the laser array unit 14 (col. 6, lines 21-25 of Kawamoto) is also adjusted in accordance with the magnification ratio. During the image enlargement, the number of turning-on/off of the semiconductor laser elements of the laser array unit must increase to form the enlarged image data and during the image reduction, the number of turning-on/off of the semiconductor laser elements of the laser array unit must decrease to form the reduced image data.

4. Therefore, the rejection of claim 1 and 9 is maintained and repeated in this Office Action.

Examiner previously requested the applicant to provide a reference(s) that teaches the features disclosed in the Background of the Specification upon filing a response to the previous Office action. No reply to this request has been received in

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the current amendment. Again, the applicant is requested to provide the reference(s) in order to better take a decision on patentability.

Drawings

5. Figures 11 and 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 9 is objected to because of the following informalities:

Line 3, "image data" should be -- the image data --;

Line 10, "image data" should be -- the image data --;

Line 13, a new line should start after "ration,"; and

Last line, "image forming means" should be -- the image forming means --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim recites "*the read signal for the first-in, first-out memory is started earlier than the write signal therefor when the variable magnification processing is the image reduction*" (lines 18-20). It appears that the image data stored in the FIFO memory is first read and then written back to the FIFO memory during the image reduction process. However, Examiner believes that the applicant's original Specification and Drawings teach the opposite. Referring to figs. 4-6 and page 36, lines 5-14 of the Specification, the image data coming from the CCD circuit board 300 is first reduced by the variable magnification unit 5 or reducing variable magnification unit 61 and then the reduced image data is written in the single FIFO memory 4. Thus, it is concluded that the read signal for the FIFO memory cannot be started earlier than the write signal during the image reduction process.

If the applicant disagrees with above statement, the applicant is respectfully requested to point out a detailed disclosure in both the Drawings and the Specification to support the identified claimed limitation. Note that Examiner also consider disclosure

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in page 40, lines 13-22. However, this portion of the Specification apparently does not and cannot be applied to figs. 4-6 since there is no image data to be read from the FIFO memory during the reduction. Thus, the read signal for the FIFO memory cannot be started earlier than the write signal during the image reduction process.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamoto.

8. With respect to claim 1, Kawamoto discloses an image processing apparatus provided with a capability of carrying out variable magnification of image data, comprising:

a single first-in, first-out memory (FIFO 63 in figs. 6 & 7) for carrying out write/read processing of image data;

an enlarging variable magnification unit for carrying out variable-magnification processing following write processing (col. 8, lines 62-64) and read processing (col. 8,

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lines 64-67) of image data to and from the first-in, first-out memory during image enlargement (col. 8, line 62 – col. 9, line 6); and

a reducing variable magnification unit for writing image data to the first-in, first-out memory after variable-magnification is carried out during image reduction (col. 9, lines 7-12), wherein an enlarging variable magnification processing in a scan direction is carried out independently of an enlarging variable magnification processing in a sub-scan direction (col. 7, lines 12-19) or

a reducing variable magnification processing in a scan direction is carried out independently of a reducing variable magnification processing in a sub-scan direction (col. 7, lines 12-19), and

wherein a write signal for the first-in, first-out memory is started earlier than a read signal therefor when the variable magnification processing is an enlargement (col. 8, lines 62-67), and the read signal for the first-in, first-out memory is started earlier than the write signal therefor when the variable magnification processing is reduction.

9. With respect to claim 9, Kawamoto discloses an image processing apparatus provided with a capability of carrying out variable magnification of image data, comprising:

a line memory (FIFO 63) for storing one line worth of data (col. 8, lines 63-64);

a plurality of image forming means (semiconductor laser elements of the laser array unit 14 in col. 6, line 23);

a plurality of output lines (lines connected to the input of the semiconductor laser elements) for connecting the line memory and the plurality of image forming means;

a plurality of switching means (LED writing head control device 37) for turning the plurality of output lines on or off individually; and

a variable-magnification processing means for increasing and decreasing a number of the image forming means from which one line worth of the image data is outputted by increasing and decreasing a number of the turning-on switching means by on/off-controlling the switching means in correspondence to magnification ratio (col. 6, lines 17-25),

wherein an enlarging variable magnification processing in a scan direction is carried out independently of an enlarging variable magnification processing in a sub-scan direction (col. 7, lines 12-19), or

a reducing variable magnification processing in a scan direction is carried out independently of a reducing variable magnification processing in a sub-scan direction (col. 7, lines 12-19) and

wherein each of the plurality of output lines from the line memory is connected in parallel to the plurality of the image forming means.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csp
March 17, 2006

Chan S. Park
Examiner
Art Unit 2625

Chan S. Park

DOUGLAS Q. TRAN
PRIMARY EXAMINER
Douglas Q. Tran